We claim:

1. A method for testing a program-controlled unit, which comprises the steps of:

providing an external test device that brings about an execution, in the program-controlled unit, of a program which at least one of initiates, performs and supports the testing of the program-controlled unit.

2. The method according to claim 1, which comprises performing the testing of the program-controlled unit to check the program-controlled unit for hardware faults.

3. The method according to claim 1, which comprises performing the testing one of during and immediately after a production of the program-controlled unit.

4. The method according to claim 1, which comprises loading one of the program and parts of the program into the program-controlled unit using the external test device.

5. The method according to claim 4, which comprises storing one of the program and the parts of the program in a nonvolatile memory of the program-controlled unit during a production of the program-controlled unit.

6. The method according to claim 5, which comprises the program calling at least one subroutine stored in the nonvolatile memory.

7. The method according to claim 1, which comprises starting the program by resetting the program-controlled unit.

8. The method according to claim 1, which comprises setting up the external test device and the program so as to communicate with one another.

9. The method according to claim 8, which comprises effecting the communication using at least one of input terminals and output terminals of the program-controlled unit, and in that the program, at least at times at which the program is ready to accept data, the program repeatedly interrogates at least one of the input terminals and the output terminals through which the data can be fed to the program in order to accept the data fed to at least one of the input terminals and the output terminals.

10. The method according to claim 9, which comprises effecting the communication through an interface of the program-controlled unit that is defined by the program.

11.   The method according to claim 9, which comprises setting up at least one of the input terminals and the output terminals of the program-controlled unit through which the communication is effected to be the input terminals and the output terminals which have other functions during normal operation of the program-controlled unit.

12.   The method according to claim 9, wherein the input terminals and the output terminals used for the communications form an interface during normal operation of the program-controlled unit.

13.   The method according to claim 9, which comprises holding stably the data fed to at least one of the input terminals and the output terminals of the program-controlled unit and the data output from at least one of the input terminals and the output terminals of the program-controlled unit over a plurality of internal clock cycles of at least one of the program-controlled unit and of the external test device.

14.   The method according to claim 8, which comprises effecting the communication using registers of the program-controlled unit which can be at least one of written to and read from by the external test device.

15. The method according to claim 8, which comprises operating the program in a manner dependent on data which are fed to the program-controlled unit by the external test device.

16. The method according to claim 8, which comprises using corresponding data output from the program-controlled unit to signal to the program that the program-controlled unit is ready to accept additional data.

17. The method according to claim 8, wherein the external test device controls a sequence of the program by feeding data to the program-controlled unit.

18. The method according to claim 17, wherein by controlling the sequence of the program, the external test device determines what tests or operations are initiated, performed or supported by the program.

19. The method according to claim 18, wherein the tests or the operations are initiated, performed, or supported using or taking account of additional data which are fed to the program-controlled unit by the external test device.

20. The method according to claim 18, which comprises the program outputting to the external test device further data

relating to at least one of an execution and a result of the tests.

21. The method according to claim 18, which comprises outputting additional data suitable as input signals for a device performing a repair of the program-controlled unit from the program to the device.

22. The method according to claim 21, which comprises outputting the additional data directly from the program to the device performing the repair.

23. The method according to claim 21, which comprise checking whether the repair was successful after a completion of the repair.

24. The method according to claim 1, which comprises using the program to activate component parts of the program-controlled unit which one of accelerate and support a sequence of a test or a performance of an operation.

25. The method according to claim 1, which comprises at least partly repeating in one of a defined order and a random order tests and operations which can be one of initiated, performed and supported by the program.

26. The method according to claim 18, which comprises the program outputting to the external test device further data relating to at least one of an execution and a result of the operations.

27. The method according to claim 18, which comprises the program outputting further data relating to at least one of an execution and a result of one of the tests and the operations to be fetched by the external test device.